

September 01, 2017

Weston Solutions - CO

Sample Delivery Group: L932739
Samples Received: 08/30/2017
Project Number: 20408.016.001.00499.
Description: Jumbo Mine
Site: JUMBO MINE
Report To: Joe Rudi
1435 Garrison St., Ste 100
Denver, CO 80215

Entire Report Reviewed By:



Shane Gambill

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



JM-SW01 L932739-01 GW

			Collected by JR/MC	Collected date/time 08/28/17 12:20	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:00	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:39	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:06	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:33	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:12	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 19:47	JPD

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

JM-SW02 L932739-02 GW

			Collected by JR/MC	Collected date/time 08/28/17 12:25	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:03	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:41	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:09	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:35	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:16	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 19:51	JPD

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

JM-SW03 L932739-03 GW

			Collected by JR/MC	Collected date/time 08/28/17 12:50	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:05	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:44	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:13	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:38	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:26	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 19:55	JPD

JM-SW04 L932739-04 GW

			Collected by JR/MC	Collected date/time 08/28/17 13:20	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:07	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:46	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:16	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:46	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:30	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 19:58	JPD

JM-SW05 L932739-05 GW

			Collected by JR/MC	Collected date/time 08/28/17 15:10	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:09	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:53	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:19	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:48	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:33	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:02	JPD

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



JM-SW05D L932739-06 GW

Collected by
JR/MC

Collected date/time
08/28/17 15:10

Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:12	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:55	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:22	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:51	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:37	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:05	JPD

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

JM-SW06 L932739-07 GW

Collected by
JR/MC

Collected date/time
08/28/17 15:30

Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/30/17 23:29	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:32	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 17:23	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:23	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 20:58	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 19:12	JPD

JM-SW07 L932739-08 GW

Collected by
JR/MC

Collected date/time
08/28/17 13:55

Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:14	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:57	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:32	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:53	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:40	JPD
Metals (ICPMS) by Method 6020	WG1015470	1	09/01/17 09:28	09/01/17 15:27	JPD

JM-SW08 L932739-09 GW

Collected by
JR/MC

Collected date/time
08/28/17 14:35

Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015202	1	08/30/17 15:27	08/31/17 00:16	EL
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 00:59	EL
Metals (ICP) by Method 6010B	WG1015321	1	08/31/17 11:48	08/31/17 18:36	ST
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:56	ST
Metals (ICPMS) by Method 6020	WG1015327	1	08/31/17 12:50	08/31/17 21:44	JPD
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:09	JPD

JM-BT-8.5 L932739-10 GW

Collected by
JR/MC

Collected date/time
08/28/17 14:30

Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 01:02	EL
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 17:58	ST
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:19	JPD

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JM-BT-9.5 L932739-11 GW

			Collected by JR/MC	Collected date/time 08/28/17 14:37	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 01:04	EL
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 18:01	ST
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:23	JPD

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

JM-BT-10.5 L932739-12 GW

			Collected by JR/MC	Collected date/time 08/28/17 14:45	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1015203	1	08/30/17 15:29	08/31/17 01:06	EL
Metals (ICP) by Method 6010B	WG1015325	1	08/31/17 13:21	08/31/17 18:04	ST
Metals (ICPMS) by Method 6020	WG1015329	1	08/31/17 00:41	08/31/17 20:26	JPD

JM-TCLP01 L932739-13 Waste

			Collected by JR/MC	Collected date/time 08/28/17 15:37	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG1015229	1	08/30/17 14:14	08/30/17 14:14	TM
Mercury by Method 7470A	WG1015576	1	08/31/17 09:58	08/31/17 14:11	EL
Metals (ICP) by Method 6010B	WG1015759	1	08/31/17 14:47	08/31/17 19:50	JDG

JM-TCLP02 L932739-14 Waste

			Collected by JR/MC	Collected date/time 08/28/17 15:45	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG1015229	1	08/30/17 14:14	08/30/17 14:14	TM
Mercury by Method 7470A	WG1015576	1	08/31/17 09:58	08/31/17 14:20	EL
Metals (ICP) by Method 6010B	WG1015759	1	08/31/17 14:47	08/31/17 19:53	JDG

JM-TCLP03 L932739-15 Waste

			Collected by JR/MC	Collected date/time 08/28/17 15:57	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG1015229	1	08/30/17 14:14	08/30/17 14:14	TM
Mercury by Method 7470A	WG1015576	1	08/31/17 09:58	08/31/17 14:23	EL
Metals (ICP) by Method 6010B	WG1015759	1	08/31/17 14:47	08/31/17 19:56	JDG

JM-WR03 L932739-16 Solid

			Collected by JR/MC	Collected date/time 08/28/17 15:50	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG1015205	1	08/30/17 14:33	08/31/17 00:19	EL
Metals (ICP) by Method 6010B	WG1015476	10	08/31/17 20:27	09/01/17 10:39	CCE

JM-WR04 L932739-17 Solid

			Collected by JR/MC	Collected date/time 08/28/17 10:10	Received date/time 08/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG1015205	1	08/30/17 14:33	08/31/17 00:26	EL
Metals (ICP) by Method 6010B	WG1015476	10	08/31/17 20:27	09/01/17 10:41	CCE



JM-WR04D L932739-18 Solid

Collected by
JR/MCCollected date/time
08/28/17 10:10Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG1015205	2	08/30/17 14:33	08/31/17 01:20	EL
Metals (ICP) by Method 6010B	WG1015476	10	08/31/17 20:27	09/01/17 10:44	CCE

¹Cp²Tc³Ss

JM-WR06 L932739-19 Solid

Collected by
JR/MCCollected date/time
08/28/17 10:30Received date/time
08/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG1015205	1	08/30/17 14:33	08/31/17 00:31	EL
Metals (ICP) by Method 6010B	WG1015476	1	08/31/17 20:27	09/01/17 10:49	RDS
Metals (ICP) by Method 6010B	WG1015476	5	08/31/17 20:27	09/01/17 10:46	CCE

⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	08/31/2017 00:00	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:39	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum	U		35.0	200	1	08/31/2017 18:06	WG1015321
Aluminum,Dissolved	256		35.0	200	1	08/31/2017 17:33	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:06	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:33	WG1015325
Barium	17.5		1.70	5.00	1	08/31/2017 18:06	WG1015321
Barium,Dissolved	18.2		1.70	5.00	1	08/31/2017 17:33	WG1015325
Beryllium	0.719	J	0.700	2.00	1	08/31/2017 18:06	WG1015321
Beryllium,Dissolved	1.08	J	0.700	2.00	1	08/31/2017 17:33	WG1015325
Cadmium	13.9		0.700	2.00	1	08/31/2017 18:06	WG1015321
Cadmium,Dissolved	13.4		0.700	2.00	1	08/31/2017 17:33	WG1015325
Calcium	17100		46.3	1000	1	08/31/2017 18:06	WG1015321
Calcium,Dissolved	16700		46.3	1000	1	08/31/2017 17:33	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:06	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:33	WG1015325
Cobalt	2.88	J	2.30	10.0	1	08/31/2017 18:06	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:33	WG1015325
Copper	122		5.30	10.0	1	08/31/2017 18:06	WG1015321
Copper,Dissolved	119		5.30	10.0	1	08/31/2017 17:33	WG1015325
Iron	1320		14.1	100	1	08/31/2017 18:06	WG1015321
Iron,Dissolved	492		14.1	100	1	08/31/2017 17:33	WG1015325
Magnesium	2250		11.1	1000	1	08/31/2017 18:06	WG1015321
Magnesium,Dissolved	2220		11.1	1000	1	08/31/2017 17:33	WG1015325
Manganese	3410		1.20	10.0	1	08/31/2017 18:06	WG1015321
Manganese,Dissolved	3310		1.20	10.0	1	08/31/2017 17:33	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:06	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:33	WG1015325
Potassium	1070		102	1000	1	08/31/2017 18:06	WG1015321
Potassium,Dissolved	1010		102	1000	1	08/31/2017 17:33	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:06	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:33	WG1015325
Sodium	3360		98.5	1000	1	08/31/2017 18:06	WG1015321
Sodium,Dissolved	3460		98.5	1000	1	08/31/2017 17:33	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:06	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:33	WG1015325
Zinc	5330		5.90	50.0	1	08/31/2017 18:06	WG1015321
Zinc,Dissolved	5470		5.90	50.0	1	08/31/2017 17:33	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	08/31/2017 21:12	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 19:47	WG1015329
Lead	335		0.240	2.00	1	08/31/2017 21:12	WG1015327
Lead,Dissolved	278		0.240	2.00	1	08/31/2017 19:47	WG1015329
Selenium	U		0.380	2.00	1	08/31/2017 21:12	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 19:47	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:12	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 19:47	WG1015329



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0490	0.200	1	08/31/2017 00:03	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:41	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum	U		35.0	200	1	08/31/2017 18:09	WG1015321
Aluminum,Dissolved	281		35.0	200	1	08/31/2017 17:35	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:09	WG1015321
Arsenic,Dissolved	6.84	J	6.50	10.0	1	08/31/2017 17:35	WG1015325
Barium	17.5		1.70	5.00	1	08/31/2017 18:09	WG1015321
Barium,Dissolved	18.3		1.70	5.00	1	08/31/2017 17:35	WG1015325
Beryllium	0.856	J	0.700	2.00	1	08/31/2017 18:09	WG1015321
Beryllium,Dissolved	1.00	J	0.700	2.00	1	08/31/2017 17:35	WG1015325
Cadmium	13.8		0.700	2.00	1	08/31/2017 18:09	WG1015321
Cadmium,Dissolved	13.3		0.700	2.00	1	08/31/2017 17:35	WG1015325
Calcium	16900		46.3	1000	1	08/31/2017 18:09	WG1015321
Calcium,Dissolved	16600		46.3	1000	1	08/31/2017 17:35	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:09	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:35	WG1015325
Cobalt	2.43	J	2.30	10.0	1	08/31/2017 18:09	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:35	WG1015325
Copper	125		5.30	10.0	1	08/31/2017 18:09	WG1015321
Copper,Dissolved	116		5.30	10.0	1	08/31/2017 17:35	WG1015325
Iron	5940		14.1	100	1	08/31/2017 18:09	WG1015321
Iron,Dissolved	878		14.1	100	1	08/31/2017 17:35	WG1015325
Magnesium	2270		11.1	1000	1	08/31/2017 18:09	WG1015321
Magnesium,Dissolved	2200		11.1	1000	1	08/31/2017 17:35	WG1015325
Manganese	3390		1.20	10.0	1	08/31/2017 18:09	WG1015321
Manganese,Dissolved	3300		1.20	10.0	1	08/31/2017 17:35	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:09	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:35	WG1015325
Potassium	1070		102	1000	1	08/31/2017 18:09	WG1015321
Potassium,Dissolved	1010		102	1000	1	08/31/2017 17:35	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:09	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:35	WG1015325
Sodium	3330		98.5	1000	1	08/31/2017 18:09	WG1015321
Sodium,Dissolved	3420		98.5	1000	1	08/31/2017 17:35	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:09	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:35	WG1015325
Zinc	5280		5.90	50.0	1	08/31/2017 18:09	WG1015321
Zinc,Dissolved	5490		5.90	50.0	1	08/31/2017 17:35	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	1.26	J	0.754	2.00	1	08/31/2017 21:16	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 19:51	WG1015329
Lead	434		0.240	2.00	1	08/31/2017 21:16	WG1015327
Lead,Dissolved	289		0.240	2.00	1	08/31/2017 19:51	WG1015329
Selenium	U		0.380	2.00	1	08/31/2017 21:16	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 19:51	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:16	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 19:51	WG1015329



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0490	0.200	1	08/31/2017 00:05	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:44	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum	U		35.0	200	1	08/31/2017 18:13	WG1015321
Aluminum,Dissolved	258		35.0	200	1	08/31/2017 17:38	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:13	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:38	WG1015325
Barium	17.6		1.70	5.00	1	08/31/2017 18:13	WG1015321
Barium,Dissolved	17.7		1.70	5.00	1	08/31/2017 17:38	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 18:13	WG1015321
Beryllium,Dissolved	0.812	J	0.700	2.00	1	08/31/2017 17:38	WG1015325
Cadmium	13.2		0.700	2.00	1	08/31/2017 18:13	WG1015321
Cadmium,Dissolved	12.6		0.700	2.00	1	08/31/2017 17:38	WG1015325
Calcium	16500		46.3	1000	1	08/31/2017 18:13	WG1015321
Calcium,Dissolved	16200		46.3	1000	1	08/31/2017 17:38	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:13	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:38	WG1015325
Cobalt	U		2.30	10.0	1	08/31/2017 18:13	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:38	WG1015325
Copper	112		5.30	10.0	1	08/31/2017 18:13	WG1015321
Copper,Dissolved	109		5.30	10.0	1	08/31/2017 17:38	WG1015325
Iron	655		14.1	100	1	08/31/2017 18:13	WG1015321
Iron,Dissolved	83.3	J	14.1	100	1	08/31/2017 17:38	WG1015325
Magnesium	2220		11.1	1000	1	08/31/2017 18:13	WG1015321
Magnesium,Dissolved	2130		11.1	1000	1	08/31/2017 17:38	WG1015325
Manganese	3060		1.20	10.0	1	08/31/2017 18:13	WG1015321
Manganese,Dissolved	2980		1.20	10.0	1	08/31/2017 17:38	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:13	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:38	WG1015325
Potassium	973	J	102	1000	1	08/31/2017 18:13	WG1015321
Potassium,Dissolved	945	J	102	1000	1	08/31/2017 17:38	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:13	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:38	WG1015325
Sodium	3270		98.5	1000	1	08/31/2017 18:13	WG1015321
Sodium,Dissolved	3240		98.5	1000	1	08/31/2017 17:38	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:13	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:38	WG1015325
Zinc	5100		5.90	50.0	1	08/31/2017 18:13	WG1015321
Zinc,Dissolved	5270		5.90	50.0	1	08/31/2017 17:38	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		0.754	2.00	1	08/31/2017 21:26	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 19:55	WG1015329
Lead	248		0.240	2.00	1	08/31/2017 21:26	WG1015327
Lead,Dissolved	217		0.240	2.00	1	08/31/2017 19:55	WG1015329
Selenium	U		0.380	2.00	1	08/31/2017 21:26	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 19:55	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:26	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 19:55	WG1015329





Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0490	0.200	1	08/31/2017 00:07	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:46	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum	U		35.0	200	1	08/31/2017 18:16	WG1015321
Aluminum,Dissolved	145	J	35.0	200	1	08/31/2017 17:46	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:16	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:46	WG1015325
Barium	15.7		1.70	5.00	1	08/31/2017 18:16	WG1015321
Barium,Dissolved	15.5		1.70	5.00	1	08/31/2017 17:46	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 18:16	WG1015321
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 17:46	WG1015325
Cadmium	9.36		0.700	2.00	1	08/31/2017 18:16	WG1015321
Cadmium,Dissolved	8.86		0.700	2.00	1	08/31/2017 17:46	WG1015325
Calcium	16600		46.3	1000	1	08/31/2017 18:16	WG1015321
Calcium,Dissolved	16000		46.3	1000	1	08/31/2017 17:46	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:16	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:46	WG1015325
Cobalt	U		2.30	10.0	1	08/31/2017 18:16	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:46	WG1015325
Copper	54.3		5.30	10.0	1	08/31/2017 18:16	WG1015321
Copper,Dissolved	38.3		5.30	10.0	1	08/31/2017 17:46	WG1015325
Iron	743		14.1	100	1	08/31/2017 18:16	WG1015321
Iron,Dissolved	265		14.1	100	1	08/31/2017 17:46	WG1015325
Magnesium	2300		11.1	1000	1	08/31/2017 18:16	WG1015321
Magnesium,Dissolved	2150		11.1	1000	1	08/31/2017 17:46	WG1015325
Manganese	2770		1.20	10.0	1	08/31/2017 18:16	WG1015321
Manganese,Dissolved	2670		1.20	10.0	1	08/31/2017 17:46	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:16	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:46	WG1015325
Potassium	1050		102	1000	1	08/31/2017 18:16	WG1015321
Potassium,Dissolved	1020		102	1000	1	08/31/2017 17:46	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:16	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:46	WG1015325
Sodium	8650		98.5	1000	1	08/31/2017 18:16	WG1015321
Sodium,Dissolved	8570		98.5	1000	1	08/31/2017 17:46	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:16	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:46	WG1015325
Zinc	3660		5.90	50.0	1	08/31/2017 18:16	WG1015321
Zinc,Dissolved	3720		5.90	50.0	1	08/31/2017 17:46	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		0.754	2.00	1	08/31/2017 21:30	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 19:58	WG1015329
Lead	142		0.240	2.00	1	08/31/2017 21:30	WG1015327
Lead,Dissolved	73.8		0.240	2.00	1	08/31/2017 19:58	WG1015329
Selenium	U		0.380	2.00	1	08/31/2017 21:30	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 19:58	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:30	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 19:58	WG1015329



Mercury by Method 7470A

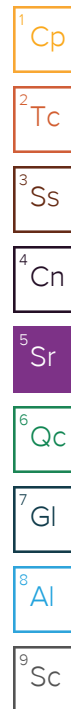
Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	08/31/2017 00:09	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:53	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum	4240		35.0	200	1	08/31/2017 18:19	WG1015321
Aluminum,Dissolved	3330		35.0	200	1	08/31/2017 17:48	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:19	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:48	WG1015325
Barium	35.3		1.70	5.00	1	08/31/2017 18:19	WG1015321
Barium,Dissolved	35.0		1.70	5.00	1	08/31/2017 17:48	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 18:19	WG1015321
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 17:48	WG1015325
Cadmium	6.47		0.700	2.00	1	08/31/2017 18:19	WG1015321
Cadmium,Dissolved	6.13		0.700	2.00	1	08/31/2017 17:48	WG1015325
Calcium	24700		46.3	1000	1	08/31/2017 18:19	WG1015321
Calcium,Dissolved	21800		46.3	1000	1	08/31/2017 17:48	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:19	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:48	WG1015325
Cobalt	6.56	<u>U</u>	2.30	10.0	1	08/31/2017 18:19	WG1015321
Cobalt,Dissolved	6.26	<u>U</u>	2.30	10.0	1	08/31/2017 17:48	WG1015325
Copper	67.5		5.30	10.0	1	08/31/2017 18:19	WG1015321
Copper,Dissolved	67.5		5.30	10.0	1	08/31/2017 17:48	WG1015325
Iron	517		14.1	100	1	08/31/2017 18:19	WG1015321
Iron,Dissolved	411		14.1	100	1	08/31/2017 17:48	WG1015325
Magnesium	7320		11.1	1000	1	08/31/2017 18:19	WG1015321
Magnesium,Dissolved	6840		11.1	1000	1	08/31/2017 17:48	WG1015325
Manganese	1750		1.20	10.0	1	08/31/2017 18:19	WG1015321
Manganese,Dissolved	1700		1.20	10.0	1	08/31/2017 17:48	WG1015325
Nickel	16.0		4.90	10.0	1	08/31/2017 18:19	WG1015321
Nickel,Dissolved	17.2		4.90	10.0	1	08/31/2017 17:48	WG1015325
Potassium	872	<u>U</u>	102	1000	1	08/31/2017 18:19	WG1015321
Potassium,Dissolved	828	<u>U</u>	102	1000	1	08/31/2017 17:48	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:19	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:48	WG1015325
Sodium	2320		98.5	1000	1	08/31/2017 18:19	WG1015321
Sodium,Dissolved	2300		98.5	1000	1	08/31/2017 17:48	WG1015325
Vanadium	2.72	<u>B</u> <u>J</u>	2.40	20.0	1	08/31/2017 18:19	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:48	WG1015325
Zinc	1420		5.90	50.0	1	08/31/2017 18:19	WG1015321
Zinc,Dissolved	1470		5.90	50.0	1	08/31/2017 17:48	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	08/31/2017 21:33	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:02	WG1015329
Lead	11.4		0.240	2.00	1	08/31/2017 21:33	WG1015327
Lead,Dissolved	10.7		0.240	2.00	1	08/31/2017 20:02	WG1015329
Selenium	1.12	<u>U</u>	0.380	2.00	1	08/31/2017 21:33	WG1015327
Selenium,Dissolved	1.10	<u>U</u>	0.380	2.00	1	08/31/2017 20:02	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:33	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:02	WG1015329





Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	08/31/2017 00:12	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:55	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum	4140		35.0	200	1	08/31/2017 18:22	WG1015321
Aluminum,Dissolved	3350		35.0	200	1	08/31/2017 17:51	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:22	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:51	WG1015325
Barium	35.2		1.70	5.00	1	08/31/2017 18:22	WG1015321
Barium,Dissolved	34.9		1.70	5.00	1	08/31/2017 17:51	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 18:22	WG1015321
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 17:51	WG1015325
Cadmium	6.56		0.700	2.00	1	08/31/2017 18:22	WG1015321
Cadmium,Dissolved	6.10		0.700	2.00	1	08/31/2017 17:51	WG1015325
Calcium	24700		46.3	1000	1	08/31/2017 18:22	WG1015321
Calcium,Dissolved	21800		46.3	1000	1	08/31/2017 17:51	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:22	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:51	WG1015325
Cobalt	6.61	<u>U</u>	2.30	10.0	1	08/31/2017 18:22	WG1015321
Cobalt,Dissolved	6.34	<u>U</u>	2.30	10.0	1	08/31/2017 17:51	WG1015325
Copper	67.2		5.30	10.0	1	08/31/2017 18:22	WG1015321
Copper,Dissolved	65.8		5.30	10.0	1	08/31/2017 17:51	WG1015325
Iron	491		14.1	100	1	08/31/2017 18:22	WG1015321
Iron,Dissolved	404		14.1	100	1	08/31/2017 17:51	WG1015325
Magnesium	7340		11.1	1000	1	08/31/2017 18:22	WG1015321
Magnesium,Dissolved	6850		11.1	1000	1	08/31/2017 17:51	WG1015325
Manganese	1750		1.20	10.0	1	08/31/2017 18:22	WG1015321
Manganese,Dissolved	1710		1.20	10.0	1	08/31/2017 17:51	WG1015325
Nickel	16.1		4.90	10.0	1	08/31/2017 18:22	WG1015321
Nickel,Dissolved	16.5		4.90	10.0	1	08/31/2017 17:51	WG1015325
Potassium	904	<u>U</u>	102	1000	1	08/31/2017 18:22	WG1015321
Potassium,Dissolved	860	<u>U</u>	102	1000	1	08/31/2017 17:51	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:22	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:51	WG1015325
Sodium	2310		98.5	1000	1	08/31/2017 18:22	WG1015321
Sodium,Dissolved	2260		98.5	1000	1	08/31/2017 17:51	WG1015325
Vanadium	4.52	<u>B</u> <u>J</u>	2.40	20.0	1	08/31/2017 18:22	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:51	WG1015325
Zinc	1420		5.90	50.0	1	08/31/2017 18:22	WG1015321
Zinc,Dissolved	1470		5.90	50.0	1	08/31/2017 17:51	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	08/31/2017 21:37	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:05	WG1015329
Lead	11.5		0.240	2.00	1	08/31/2017 21:37	WG1015327
Lead,Dissolved	10.6		0.240	2.00	1	08/31/2017 20:05	WG1015329
Selenium	1.21	<u>U</u>	0.380	2.00	1	08/31/2017 21:37	WG1015327
Selenium,Dissolved	1.05	<u>U</u>	0.380	2.00	1	08/31/2017 20:05	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:37	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:05	WG1015329



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0490	0.200	1	08/30/2017 23:29	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:32	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum	4110		35.0	200	1	08/31/2017 17:23	WG1015321
Aluminum,Dissolved	3000		35.0	200	1	08/31/2017 17:23	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 17:23	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:23	WG1015325
Barium	35.4		1.70	5.00	1	08/31/2017 17:23	WG1015321
Barium,Dissolved	34.8		1.70	5.00	1	08/31/2017 17:23	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 17:23	WG1015321
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 17:23	WG1015325
Cadmium	6.66		0.700	2.00	1	08/31/2017 17:23	WG1015321
Cadmium,Dissolved	6.43		0.700	2.00	1	08/31/2017 17:23	WG1015325
Calcium	24700	O1	46.3	1000	1	08/31/2017 17:23	WG1015321
Calcium,Dissolved	21700		46.3	1000	1	08/31/2017 17:23	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 17:23	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:23	WG1015325
Cobalt	6.52	J	2.30	10.0	1	08/31/2017 17:23	WG1015321
Cobalt,Dissolved	6.33	J	2.30	10.0	1	08/31/2017 17:23	WG1015325
Copper	66.6		5.30	10.0	1	08/31/2017 17:23	WG1015321
Copper,Dissolved	67.4		5.30	10.0	1	08/31/2017 17:23	WG1015325
Iron	494		14.1	100	1	08/31/2017 17:23	WG1015321
Iron,Dissolved	352		14.1	100	1	08/31/2017 17:23	WG1015325
Magnesium	7390	O1	11.1	1000	1	08/31/2017 17:23	WG1015321
Magnesium,Dissolved	6860		11.1	1000	1	08/31/2017 17:23	WG1015325
Manganese	1750	O1	1.20	10.0	1	08/31/2017 17:23	WG1015321
Manganese,Dissolved	1700		1.20	10.0	1	08/31/2017 17:23	WG1015325
Nickel	16.2		4.90	10.0	1	08/31/2017 17:23	WG1015321
Nickel,Dissolved	16.9		4.90	10.0	1	08/31/2017 17:23	WG1015325
Potassium	871	J	102	1000	1	08/31/2017 17:23	WG1015321
Potassium,Dissolved	820	J	102	1000	1	08/31/2017 17:23	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 17:23	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:23	WG1015325
Sodium	2290		98.5	1000	1	08/31/2017 17:23	WG1015321
Sodium,Dissolved	2500		98.5	1000	1	08/31/2017 17:23	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 17:23	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:23	WG1015325
Zinc	1440	O1	5.90	50.0	1	08/31/2017 17:23	WG1015321
Zinc,Dissolved	1470		5.90	50.0	1	08/31/2017 17:23	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		0.754	2.00	1	08/31/2017 20:58	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 19:12	WG1015329
Lead	10.6		0.240	2.00	1	08/31/2017 20:58	WG1015327
Lead,Dissolved	10.5		0.240	2.00	1	08/31/2017 19:12	WG1015329
Selenium	1.17	J	0.380	2.00	1	08/31/2017 20:58	WG1015327
Selenium,Dissolved	1.25	J	0.380	2.00	1	08/31/2017 19:12	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 20:58	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 19:12	WG1015329





Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	08/31/2017 00:14	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:57	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum	78.2	J	35.0	200	1	08/31/2017 18:32	WG1015321
Aluminum,Dissolved	334		35.0	200	1	08/31/2017 17:53	WG1015325
Arsenic	U		6.50	10.0	1	08/31/2017 18:32	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:53	WG1015325
Barium	17.8		1.70	5.00	1	08/31/2017 18:32	WG1015321
Barium,Dissolved	17.7		1.70	5.00	1	08/31/2017 17:53	WG1015325
Beryllium	0.749	J	0.700	2.00	1	08/31/2017 18:32	WG1015321
Beryllium,Dissolved	0.806	J	0.700	2.00	1	08/31/2017 17:53	WG1015325
Cadmium	14.1		0.700	2.00	1	08/31/2017 18:32	WG1015321
Cadmium,Dissolved	13.2		0.700	2.00	1	08/31/2017 17:53	WG1015325
Calcium	16700		46.3	1000	1	08/31/2017 18:32	WG1015321
Calcium,Dissolved	16100		46.3	1000	1	08/31/2017 17:53	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:32	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:53	WG1015325
Cobalt	U		2.30	10.0	1	08/31/2017 18:32	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:53	WG1015325
Copper	125		5.30	10.0	1	08/31/2017 18:32	WG1015321
Copper,Dissolved	124		5.30	10.0	1	08/31/2017 17:53	WG1015325
Iron	923		14.1	100	1	08/31/2017 18:32	WG1015321
Iron,Dissolved	101		14.1	100	1	08/31/2017 17:53	WG1015325
Magnesium	2290		11.1	1000	1	08/31/2017 18:32	WG1015321
Magnesium,Dissolved	2130		11.1	1000	1	08/31/2017 17:53	WG1015325
Manganese	3270		1.20	10.0	1	08/31/2017 18:32	WG1015321
Manganese,Dissolved	3150		1.20	10.0	1	08/31/2017 17:53	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:32	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:53	WG1015325
Potassium	1030		102	1000	1	08/31/2017 18:32	WG1015321
Potassium,Dissolved	1000		102	1000	1	08/31/2017 17:53	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:32	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:53	WG1015325
Sodium	3590		98.5	1000	1	08/31/2017 18:32	WG1015321
Sodium,Dissolved	3580		98.5	1000	1	08/31/2017 17:53	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:32	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:53	WG1015325
Zinc	5420		5.90	50.0	1	08/31/2017 18:32	WG1015321
Zinc,Dissolved	5540		5.90	50.0	1	08/31/2017 17:53	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	08/31/2017 21:40	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	09/01/2017 15:27	WG1015470
Lead	251		0.240	2.00	1	08/31/2017 21:40	WG1015327
Lead,Dissolved	257		0.240	2.00	1	09/01/2017 15:27	WG1015470
Selenium	U		0.380	2.00	1	08/31/2017 21:40	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	09/01/2017 15:27	WG1015470
Thallium	U		0.190	2.00	1	08/31/2017 21:40	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	09/01/2017 15:27	WG1015470



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	08/31/2017 00:16	WG1015202
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 00:59	WG1015203

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum	U		35.0	200	1	08/31/2017 18:36	WG1015321
Aluminum,Dissolved	279		35.0	200	1	08/31/2017 17:56	WG1015325
Arsenic	7.74	J	6.50	10.0	1	08/31/2017 18:36	WG1015321
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:56	WG1015325
Barium	18.3		1.70	5.00	1	08/31/2017 18:36	WG1015321
Barium,Dissolved	17.2		1.70	5.00	1	08/31/2017 17:56	WG1015325
Beryllium	U		0.700	2.00	1	08/31/2017 18:36	WG1015321
Beryllium,Dissolved	0.855	J	0.700	2.00	1	08/31/2017 17:56	WG1015325
Cadmium	13.4		0.700	2.00	1	08/31/2017 18:36	WG1015321
Cadmium,Dissolved	12.8		0.700	2.00	1	08/31/2017 17:56	WG1015325
Calcium	16800		46.3	1000	1	08/31/2017 18:36	WG1015321
Calcium,Dissolved	16200		46.3	1000	1	08/31/2017 17:56	WG1015325
Chromium	U		1.40	10.0	1	08/31/2017 18:36	WG1015321
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:56	WG1015325
Cobalt	U		2.30	10.0	1	08/31/2017 18:36	WG1015321
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:56	WG1015325
Copper	118		5.30	10.0	1	08/31/2017 18:36	WG1015321
Copper,Dissolved	113		5.30	10.0	1	08/31/2017 17:56	WG1015325
Iron	3970		14.1	100	1	08/31/2017 18:36	WG1015321
Iron,Dissolved	192		14.1	100	1	08/31/2017 17:56	WG1015325
Magnesium	2310		11.1	1000	1	08/31/2017 18:36	WG1015321
Magnesium,Dissolved	2200		11.1	1000	1	08/31/2017 17:56	WG1015325
Manganese	3250		1.20	10.0	1	08/31/2017 18:36	WG1015321
Manganese,Dissolved	3160		1.20	10.0	1	08/31/2017 17:56	WG1015325
Nickel	U		4.90	10.0	1	08/31/2017 18:36	WG1015321
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:56	WG1015325
Potassium	999	J	102	1000	1	08/31/2017 18:36	WG1015321
Potassium,Dissolved	941	J	102	1000	1	08/31/2017 17:56	WG1015325
Silver	U		2.80	5.00	1	08/31/2017 18:36	WG1015321
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:56	WG1015325
Sodium	3300		98.5	1000	1	08/31/2017 18:36	WG1015321
Sodium,Dissolved	3240		98.5	1000	1	08/31/2017 17:56	WG1015325
Vanadium	U		2.40	20.0	1	08/31/2017 18:36	WG1015321
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:56	WG1015325
Zinc	5210		5.90	50.0	1	08/31/2017 18:36	WG1015321
Zinc,Dissolved	5330		5.90	50.0	1	08/31/2017 17:56	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	0.882	J	0.754	2.00	1	08/31/2017 21:44	WG1015327
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:09	WG1015329
Lead	376		0.240	2.00	1	08/31/2017 21:44	WG1015327
Lead,Dissolved	268		0.240	2.00	1	08/31/2017 20:09	WG1015329
Selenium	U		0.380	2.00	1	08/31/2017 21:44	WG1015327
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 20:09	WG1015329
Thallium	U		0.190	2.00	1	08/31/2017 21:44	WG1015327
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:09	WG1015329



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 01:02	WG1015203

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	122	J	35.0	200	1	08/31/2017 17:58	WG1015325
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 17:58	WG1015325
Barium,Dissolved	17.6		1.70	5.00	1	08/31/2017 17:58	WG1015325
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 17:58	WG1015325
Cadmium,Dissolved	9.86		0.700	2.00	1	08/31/2017 17:58	WG1015325
Calcium,Dissolved	16500		46.3	1000	1	08/31/2017 17:58	WG1015325
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 17:58	WG1015325
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 17:58	WG1015325
Copper,Dissolved	19.6		5.30	10.0	1	08/31/2017 17:58	WG1015325
Iron,Dissolved	137		14.1	100	1	08/31/2017 17:58	WG1015325
Magnesium,Dissolved	2160		11.1	1000	1	08/31/2017 17:58	WG1015325
Manganese,Dissolved	3150		1.20	10.0	1	08/31/2017 17:58	WG1015325
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 17:58	WG1015325
Potassium,Dissolved	1000		102	1000	1	08/31/2017 17:58	WG1015325
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 17:58	WG1015325
Sodium,Dissolved	17700		98.5	1000	1	08/31/2017 17:58	WG1015325
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 17:58	WG1015325
Zinc,Dissolved	2370		5.90	50.0	1	08/31/2017 17:58	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:19	WG1015329
Lead,Dissolved	35.3		0.240	2.00	1	08/31/2017 20:19	WG1015329
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 20:19	WG1015329
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:19	WG1015329



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 01:04	WG1015203

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	80.1	J	35.0	200	1	08/31/2017 18:01	WG1015325
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 18:01	WG1015325
Barium,Dissolved	17.0		1.70	5.00	1	08/31/2017 18:01	WG1015325
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 18:01	WG1015325
Cadmium,Dissolved	5.02		0.700	2.00	1	08/31/2017 18:01	WG1015325
Calcium,Dissolved	16400		46.3	1000	1	08/31/2017 18:01	WG1015325
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 18:01	WG1015325
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 18:01	WG1015325
Copper,Dissolved	8.15	J	5.30	10.0	1	08/31/2017 18:01	WG1015325
Iron,Dissolved	U		14.1	100	1	08/31/2017 18:01	WG1015325
Magnesium,Dissolved	2180		11.1	1000	1	08/31/2017 18:01	WG1015325
Manganese,Dissolved	2900		1.20	10.0	1	08/31/2017 18:01	WG1015325
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 18:01	WG1015325
Potassium,Dissolved	981	J	102	1000	1	08/31/2017 18:01	WG1015325
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 18:01	WG1015325
Sodium,Dissolved	21800		98.5	1000	1	08/31/2017 18:01	WG1015325
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 18:01	WG1015325
Zinc,Dissolved	1290		5.90	50.0	1	08/31/2017 18:01	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:23	WG1015329
Lead,Dissolved	6.14		0.240	2.00	1	08/31/2017 20:23	WG1015329
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 20:23	WG1015329
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:23	WG1015329



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	08/31/2017 01:06	WG1015203

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	313		35.0	200	1	08/31/2017 18:04	WG1015325
Arsenic,Dissolved	U		6.50	10.0	1	08/31/2017 18:04	WG1015325
Barium,Dissolved	18.7		1.70	5.00	1	08/31/2017 18:04	WG1015325
Beryllium,Dissolved	U		0.700	2.00	1	08/31/2017 18:04	WG1015325
Cadmium,Dissolved	13.0		0.700	2.00	1	08/31/2017 18:04	WG1015325
Calcium,Dissolved	16300		46.3	1000	1	08/31/2017 18:04	WG1015325
Chromium,Dissolved	U		1.40	10.0	1	08/31/2017 18:04	WG1015325
Cobalt,Dissolved	U		2.30	10.0	1	08/31/2017 18:04	WG1015325
Copper,Dissolved	114		5.30	10.0	1	08/31/2017 18:04	WG1015325
Iron,Dissolved	1300		14.1	100	1	08/31/2017 18:04	WG1015325
Magnesium,Dissolved	2150		11.1	1000	1	08/31/2017 18:04	WG1015325
Manganese,Dissolved	3180		1.20	10.0	1	08/31/2017 18:04	WG1015325
Nickel,Dissolved	U		4.90	10.0	1	08/31/2017 18:04	WG1015325
Potassium,Dissolved	1010		102	1000	1	08/31/2017 18:04	WG1015325
Silver,Dissolved	U		2.80	5.00	1	08/31/2017 18:04	WG1015325
Sodium,Dissolved	32000		98.5	1000	1	08/31/2017 18:04	WG1015325
Vanadium,Dissolved	U		2.40	20.0	1	08/31/2017 18:04	WG1015325
Zinc,Dissolved	5350		5.90	50.0	1	08/31/2017 18:04	WG1015325

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.754	2.00	1	08/31/2017 20:26	WG1015329
Lead,Dissolved	305		0.240	2.00	1	08/31/2017 20:26	WG1015329
Selenium,Dissolved	U		0.380	2.00	1	08/31/2017 20:26	WG1015329
Thallium,Dissolved	U		0.190	2.00	1	08/31/2017 20:26	WG1015329



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/30/2017 2:14:32 PM	WG1015229
Fluid	1		8/30/2017 2:14:32 PM	WG1015229
Initial pH	3.70		8/30/2017 2:14:32 PM	WG1015229
Final pH	4.86		8/30/2017 2:14:32 PM	WG1015229

Mercury by Method 7470A

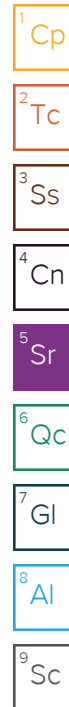
Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	08/31/2017 14:11	WG1015576

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Aluminum	ND		2.00		1	08/31/2017 19:50	WG1015759
Antimony	ND		0.100		1	08/31/2017 19:50	WG1015759
Arsenic	ND		0.100	5	1	08/31/2017 19:50	WG1015759
Barium	0.448		0.100	100	1	08/31/2017 19:50	WG1015759
Beryllium	ND		0.0200		1	08/31/2017 19:50	WG1015759
Cadmium	ND		0.100	1	1	08/31/2017 19:50	WG1015759
Calcium	ND		10.0		1	08/31/2017 19:50	WG1015759
Chromium	ND		0.100	5	1	08/31/2017 19:50	WG1015759
Cobalt	ND		0.100	5	1	08/31/2017 19:50	WG1015759
Copper	ND		0.100		1	08/31/2017 19:50	WG1015759
Iron	ND		1.00		1	08/31/2017 19:50	WG1015759
Lead	4.65		0.100	5	1	08/31/2017 19:50	WG1015759
Magnesium	ND		10.0		1	08/31/2017 19:50	WG1015759
Manganese	ND		0.100		1	08/31/2017 19:50	WG1015759
Potassium	ND		10.0		1	08/31/2017 19:50	WG1015759
Nickel	ND		0.100		1	08/31/2017 19:50	WG1015759
Selenium	ND		0.100	1	1	08/31/2017 19:50	WG1015759
Silver	ND		0.100	5	1	08/31/2017 19:50	WG1015759
Thallium	ND		0.100		1	08/31/2017 19:50	WG1015759
Vanadium	ND		0.200		1	08/31/2017 19:50	WG1015759
Zinc	2.67		0.500		1	08/31/2017 19:50	WG1015759

Sample Narrative:

L932739-13 WG1015759: Sodium is present in TCLP fluid and elevates the sodium results, therefore it is not reportable.





Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/30/2017 2:14:32 PM	WG1015229
Fluid	1		8/30/2017 2:14:32 PM	WG1015229
Initial pH	3.44		8/30/2017 2:14:32 PM	WG1015229
Final pH	4.77		8/30/2017 2:14:32 PM	WG1015229

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	08/31/2017 14:20	WG1015576

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Aluminum	ND		2.00		1	08/31/2017 19:53	WG1015759
Antimony	ND		0.100		1	08/31/2017 19:53	WG1015759
Arsenic	ND		0.100	5	1	08/31/2017 19:53	WG1015759
Barium	0.309		0.100	100	1	08/31/2017 19:53	WG1015759
Beryllium	ND		0.0200		1	08/31/2017 19:53	WG1015759
Cadmium	ND		0.100	1	1	08/31/2017 19:53	WG1015759
Calcium	ND		10.0		1	08/31/2017 19:53	WG1015759
Chromium	ND		0.100	5	1	08/31/2017 19:53	WG1015759
Cobalt	ND		0.100	5	1	08/31/2017 19:53	WG1015759
Copper	ND		0.100		1	08/31/2017 19:53	WG1015759
Iron	ND		1.00		1	08/31/2017 19:53	WG1015759
Lead	1.27		0.100	5	1	08/31/2017 19:53	WG1015759
Magnesium	ND		10.0		1	08/31/2017 19:53	WG1015759
Manganese	ND		0.100		1	08/31/2017 19:53	WG1015759
Potassium	ND		10.0		1	08/31/2017 19:53	WG1015759
Nickel	ND		0.100		1	08/31/2017 19:53	WG1015759
Selenium	ND		0.100	1	1	08/31/2017 19:53	WG1015759
Silver	ND		0.100	5	1	08/31/2017 19:53	WG1015759
Thallium	ND		0.100		1	08/31/2017 19:53	WG1015759
Vanadium	ND		0.200		1	08/31/2017 19:53	WG1015759
Zinc	ND		0.500		1	08/31/2017 19:53	WG1015759

Sample Narrative:

L932739-14 WG1015759: Sodium is present in TCLP fluid and elevates the sodium results, therefore it is not reportable



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/30/2017 2:14:32 PM	WG1015229
Fluid	1		8/30/2017 2:14:32 PM	WG1015229
Initial pH	3.65		8/30/2017 2:14:32 PM	WG1015229
Final pH	4.79		8/30/2017 2:14:32 PM	WG1015229

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	08/31/2017 14:23	WG1015576

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Aluminum	ND		2.00		1	08/31/2017 19:56	WG1015759
Antimony	ND		0.100		1	08/31/2017 19:56	WG1015759
Arsenic	ND		0.100	5	1	08/31/2017 19:56	WG1015759
Barium	0.465		0.100	100	1	08/31/2017 19:56	WG1015759
Beryllium	ND		0.0200		1	08/31/2017 19:56	WG1015759
Cadmium	ND		0.100	1	1	08/31/2017 19:56	WG1015759
Calcium	ND		10.0		1	08/31/2017 19:56	WG1015759
Chromium	ND		0.100	5	1	08/31/2017 19:56	WG1015759
Cobalt	ND		0.100	5	1	08/31/2017 19:56	WG1015759
Copper	ND		0.100		1	08/31/2017 19:56	WG1015759
Iron	ND		1.00		1	08/31/2017 19:56	WG1015759
Lead	6.81		0.100	5	1	08/31/2017 19:56	WG1015759
Magnesium	ND		10.0		1	08/31/2017 19:56	WG1015759
Manganese	0.281	<u>B</u>	0.100		1	08/31/2017 19:56	WG1015759
Potassium	ND		10.0		1	08/31/2017 19:56	WG1015759
Nickel	ND		0.100		1	08/31/2017 19:56	WG1015759
Selenium	ND		0.100	1	1	08/31/2017 19:56	WG1015759
Silver	ND		0.100	5	1	08/31/2017 19:56	WG1015759
Thallium	ND		0.100		1	08/31/2017 19:56	WG1015759
Vanadium	ND		0.200		1	08/31/2017 19:56	WG1015759
Zinc	5.40		0.500		1	08/31/2017 19:56	WG1015759

Sample Narrative:

L932739-15 WG1015759: Sodium is present in TCLP fluid and elevates the sodium results, therefore it is not reportable

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Mercury	703	J6	2.80	20.0	1	08/31/2017 00:19	WG1015205

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Aluminum	704000		35000	100000	10	09/01/2017 10:39	WG1015476
Antimony	52400		7500	20000	10	09/01/2017 10:39	WG1015476
Arsenic	106000		6500	20000	10	09/01/2017 10:39	WG1015476
Barium	1110000		1700	5000	10	09/01/2017 10:39	WG1015476
Beryllium	U		700	2000	10	09/01/2017 10:39	WG1015476
Cadmium	35200		700	5000	10	09/01/2017 10:39	WG1015476
Calcium	U		46300	1000000	10	09/01/2017 10:39	WG1015476
Chromium	U		1400	10000	10	09/01/2017 10:39	WG1015476
Cobalt	U		2300	10000	10	09/01/2017 10:39	WG1015476
Copper	320000		5300	20000	10	09/01/2017 10:39	WG1015476
Iron	16200000		14100	100000	10	09/01/2017 10:39	WG1015476
Lead	8220000		1900	5000	10	09/01/2017 10:39	WG1015476
Magnesium	U		11100	1000000	10	09/01/2017 10:39	WG1015476
Manganese	15300		1200	10000	10	09/01/2017 10:39	WG1015476
Nickel	U		4900	20000	10	09/01/2017 10:39	WG1015476
Potassium	1720000		102000	1000000	10	09/01/2017 10:39	WG1015476
Selenium	U		7400	20000	10	09/01/2017 10:39	WG1015476
Silver	27100		2800	10000	10	09/01/2017 10:39	WG1015476
Sodium	U		98500	1000000	10	09/01/2017 10:39	WG1015476
Thallium	U		6500	20000	10	09/01/2017 10:39	WG1015476
Vanadium	U		2400	20000	10	09/01/2017 10:39	WG1015476
Zinc	15400000		5900	50000	10	09/01/2017 10:39	WG1015476

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Mercury	758		2.80	20.0	1	08/31/2017 00:26	WG1015205

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Aluminum	797000		35000	100000	10	09/01/2017 10:41	WG1015476
Antimony	73600		7500	20000	10	09/01/2017 10:41	WG1015476
Arsenic	177000		6500	20000	10	09/01/2017 10:41	WG1015476
Barium	1760000		1700	5000	10	09/01/2017 10:41	WG1015476
Beryllium	U		700	2000	10	09/01/2017 10:41	WG1015476
Cadmium	28400		700	5000	10	09/01/2017 10:41	WG1015476
Calcium	U		46300	1000000	10	09/01/2017 10:41	WG1015476
Chromium	U		1400	10000	10	09/01/2017 10:41	WG1015476
Cobalt	U		2300	10000	10	09/01/2017 10:41	WG1015476
Copper	1280000		5300	20000	10	09/01/2017 10:41	WG1015476
Iron	31100000		14100	100000	10	09/01/2017 10:41	WG1015476
Lead	32000000		1900	5000	10	09/01/2017 10:41	WG1015476
Magnesium	U		11100	1000000	10	09/01/2017 10:41	WG1015476
Manganese	38300		1200	10000	10	09/01/2017 10:41	WG1015476
Nickel	U		4900	20000	10	09/01/2017 10:41	WG1015476
Potassium	1640000		102000	1000000	10	09/01/2017 10:41	WG1015476
Selenium	U		7400	20000	10	09/01/2017 10:41	WG1015476
Silver	101000		2800	10000	10	09/01/2017 10:41	WG1015476
Sodium	U		98500	1000000	10	09/01/2017 10:41	WG1015476
Thallium	U		6500	20000	10	09/01/2017 10:41	WG1015476
Vanadium	U		2400	20000	10	09/01/2017 10:41	WG1015476
Zinc	12300000		5900	50000	10	09/01/2017 10:41	WG1015476

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Mercury	1110		5.60	40.0	2	08/31/2017 01:20	WG1015205

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Aluminum	1060000		35000	100000	10	09/01/2017 10:44	WG1015476
Antimony	83300		7500	20000	10	09/01/2017 10:44	WG1015476
Arsenic	185000		6500	20000	10	09/01/2017 10:44	WG1015476
Barium	1840000		1700	5000	10	09/01/2017 10:44	WG1015476
Beryllium	U		700	2000	10	09/01/2017 10:44	WG1015476
Cadmium	37500		700	5000	10	09/01/2017 10:44	WG1015476
Calcium	U		46300	1000000	10	09/01/2017 10:44	WG1015476
Chromium	U		1400	10000	10	09/01/2017 10:44	WG1015476
Cobalt	U		2300	10000	10	09/01/2017 10:44	WG1015476
Copper	1310000		5300	20000	10	09/01/2017 10:44	WG1015476
Iron	29300000		14100	100000	10	09/01/2017 10:44	WG1015476
Lead	47800000		1900	5000	10	09/01/2017 10:44	WG1015476
Magnesium	U		11100	1000000	10	09/01/2017 10:44	WG1015476
Manganese	23500		1200	10000	10	09/01/2017 10:44	WG1015476
Nickel	U		4900	20000	10	09/01/2017 10:44	WG1015476
Potassium	1830000		102000	1000000	10	09/01/2017 10:44	WG1015476
Selenium	U		7400	20000	10	09/01/2017 10:44	WG1015476
Silver	207000		2800	10000	10	09/01/2017 10:44	WG1015476
Sodium	U		98500	1000000	10	09/01/2017 10:44	WG1015476
Thallium	U		6500	20000	10	09/01/2017 10:44	WG1015476
Vanadium	U		2400	20000	10	09/01/2017 10:44	WG1015476
Zinc	16300000		5900	50000	10	09/01/2017 10:44	WG1015476

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Mercury	316		2.80	20.0	1	08/31/2017 00:31	WG1015205

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/kg		ug/kg	ug/kg		date / time	
Aluminum	7490000		3500	10000	1	09/01/2017 10:49	WG1015476
Antimony	12200		750	2000	1	09/01/2017 10:49	WG1015476
Arsenic	70600		650	2000	1	09/01/2017 10:49	WG1015476
Barium	149000		170	500	1	09/01/2017 10:49	WG1015476
Beryllium	374		70.0	200	1	09/01/2017 10:49	WG1015476
Cadmium	778		70.0	500	1	09/01/2017 10:49	WG1015476
Calcium	686000		4630	100000	1	09/01/2017 10:49	WG1015476
Chromium	10800		140	1000	1	09/01/2017 10:49	WG1015476
Cobalt	1830		230	1000	1	09/01/2017 10:49	WG1015476
Copper	184000		530	2000	1	09/01/2017 10:49	WG1015476
Iron	55900000		7050	50000	5	09/01/2017 10:46	WG1015476
Lead	1070000		190	500	1	09/01/2017 10:49	WG1015476
Magnesium	2050000		1110	100000	1	09/01/2017 10:49	WG1015476
Manganese	246000		120	1000	1	09/01/2017 10:49	WG1015476
Nickel	5790		490	2000	1	09/01/2017 10:49	WG1015476
Potassium	2410000		10200	100000	1	09/01/2017 10:49	WG1015476
Selenium	U		3700	10000	5	09/01/2017 10:46	WG1015476
Silver	3140		280	1000	1	09/01/2017 10:49	WG1015476
Sodium	135000		9850	100000	1	09/01/2017 10:49	WG1015476
Thallium	U		650	2000	1	09/01/2017 10:49	WG1015476
Vanadium	19500		240	2000	1	09/01/2017 10:49	WG1015476
Zinc	408000		590	5000	1	09/01/2017 10:49	WG1015476

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3245851-1 08/30/17 23:17

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury	U		0.0490	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245851-2 08/30/17 23:20 • (LCSD) R3245851-3 08/30/17 23:22

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Mercury	3.00	3.08	3.07	103	102	80-120			0	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/30/17 23:29 • (MS) R3245851-4 08/30/17 23:31 • (MSD) R3245851-5 08/30/17 23:33

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	3.11	3.14	104	105	1	75-125			1	20



Method Blank (MB)

(MB) R3245852-1 08/31/17 00:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury,Dissolved	U		0.0490	0.200

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245852-2 08/31/17 00:28 • (LCSD) R3245852-3 08/31/17 00:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	3.11	3.12	104	104	80-120			0	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/31/17 00:32 • (MS) R3245852-4 08/31/17 00:34 • (MSD) R3245852-5 08/31/17 00:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	U	3.16	3.13	105	104	1	75-125			1	20



Method Blank (MB)

(MB) R3246085-1 08/31/17 14:04

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Mercury	U		0.00333	0.0100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246085-2 08/31/17 14:07 • (LCSD) R3246085-3 08/31/17 14:09

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Mercury	0.0300	0.0314	0.0313	105	104	80-120			0	20

L932739-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-13 08/31/17 14:11 • (MS) R3246085-4 08/31/17 14:14 • (MSD) R3246085-5 08/31/17 14:16

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.0300	ND	0.0313	0.0315	104	105	1	75-125			1	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3245858-1 08/31/17 00:05

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/kg		ug/kg	ug/kg
Mercury	U		2.80	20.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245858-2 08/31/17 00:07 • (LCSD) R3245858-3 08/31/17 00:09

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/kg	ug/kg	ug/kg	%	%	%			%	%
Mercury	300	296	327	99	109	80-120			10	20

L932739-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-16 08/31/17 00:19 • (MS) R3245858-4 08/31/17 00:21 • (MSD) R3245858-5 08/31/17 00:23

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/kg	ug/kg	ug/kg	ug/kg	%	%		%			%	%
Mercury	300	703	833	938	43	78	1	75-125	J6	E	12	20



Method Blank (MB)

(MB) R3246203-1 08/31/17 17:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aluminum	U		35.0	200
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Calcium	U		46.3	1000
Chromium	U		1.40	10.0
Cobalt	U		2.30	10.0
Copper	U		5.30	10.0
Iron	U		14.1	100
Magnesium	U		11.1	1000
Manganese	U		1.20	10.0
Nickel	U		4.90	10.0
Potassium	U		102	1000
Silver	U		2.80	5.00
Sodium	U		98.5	1000
Vanadium	3.08	J	2.40	20.0
Zinc	U		5.90	50.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246203-2 08/31/17 17:17 • (LCSD) R3246203-3 08/31/17 17:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	10000	10500	10400	105	104	80-120			1	20
Arsenic	1000	990	978	99	98	80-120			1	20
Barium	1000	1020	1010	102	101	80-120			1	20
Beryllium	1000	1050	1040	105	104	80-120			1	20
Cadmium	1000	993	983	99	98	80-120			1	20
Calcium	10000	10100	9960	101	100	80-120			1	20
Chromium	1000	1020	1020	102	102	80-120			0	20
Cobalt	1000	1040	1030	104	103	80-120			1	20
Copper	1000	1010	1010	101	101	80-120			0	20
Iron	10000	10400	10400	104	104	80-120			0	20
Magnesium	10000	10500	10400	105	104	80-120			1	20
Manganese	1000	998	990	100	99	80-120			1	20
Nickel	1000	1030	1020	103	102	80-120			1	20
Potassium	10000	9860	9800	99	98	80-120			1	20
Silver	200	196	194	98	97	80-120			1	20



L932739-01,02,03,04,05,06,07,08,09

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246203-2 08/31/17 17:17 • (LCSD) R3246203-3 08/31/17 17:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Sodium	10000	10200	10100	102	101	80-120			1	20
Vanadium	1000	1030	1020	103	102	80-120			1	20
Zinc	1000	977	966	98	97	80-120			1	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/31/17 17:23 • (MS) R3246203-5 08/31/17 17:30 • (MSD) R3246203-6 08/31/17 17:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	10000	4110	14600	14600	105	104	1	75-125			0	20
Arsenic	1000	U	1010	996	101	100	1	75-125			1	20
Barium	1000	35.4	1050	1050	102	101	1	75-125			1	20
Beryllium	1000	U	1050	1040	105	104	1	75-125			1	20
Cadmium	1000	6.66	1000	999	100	99	1	75-125			1	20
Calcium	10000	24700	35200	35000	105	103	1	75-125			1	20
Chromium	1000	U	1020	1020	102	102	1	75-125			0	20
Cobalt	1000	6.52	1040	1040	103	104	1	75-125			0	20
Copper	1000	66.6	1080	1080	101	101	1	75-125			0	20
Iron	10000	494	11000	10900	105	104	1	75-125			1	20
Magnesium	10000	7390	17600	17600	102	102	1	75-125			0	20
Manganese	1000	1750	2670	2680	92	93	1	75-125			1	20
Nickel	1000	16.2	1040	1040	102	102	1	75-125			0	20
Potassium	10000	871	10800	10800	99	99	1	75-125			0	20
Silver	200	U	195	196	97	98	1	75-125			1	20
Sodium	10000	2290	12500	12400	102	101	1	75-125			0	20
Vanadium	1000	U	1040	1030	104	103	1	75-125			1	20
Zinc	1000	1440	2350	2340	91	90	1	75-125			0	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3246196-1 08/31/17 17:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Aluminum,Dissolved	U		35.0	200
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Beryllium,Dissolved	U		0.700	2.00
Cadmium,Dissolved	U		0.700	2.00
Calcium,Dissolved	U		46.3	1000
Chromium,Dissolved	U		1.40	10.0
Cobalt,Dissolved	U		2.30	10.0
Copper,Dissolved	U		5.30	10.0
Iron,Dissolved	U		14.1	100
Magnesium,Dissolved	52.1	J	11.1	1000
Manganese,Dissolved	U		1.20	10.0
Nickel,Dissolved	U		4.90	10.0
Potassium,Dissolved	U		102	1000
Silver,Dissolved	U		2.80	5.00
Sodium,Dissolved	U		98.5	1000
Vanadium,Dissolved	U		2.40	20.0
Zinc,Dissolved	U		5.90	50.0

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246196-2 08/31/17 17:18 • (LCSD) R3246196-3 08/31/17 17:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Aluminum,Dissolved	10000	9870	9950	99	100	80-120			1	20
Arsenic,Dissolved	1000	967	978	97	98	80-120			1	20
Barium,Dissolved	1000	1010	1020	101	102	80-120			1	20
Beryllium,Dissolved	1000	1000	1010	100	101	80-120			1	20
Cadmium,Dissolved	1000	970	977	97	98	80-120			1	20
Calcium,Dissolved	10000	9750	9810	97	98	80-120			1	20
Chromium,Dissolved	1000	990	999	99	100	80-120			1	20
Cobalt,Dissolved	1000	1010	1020	101	102	80-120			1	20
Copper,Dissolved	1000	976	984	98	98	80-120			1	20
Iron,Dissolved	10000	9990	10100	100	101	80-120			1	20
Magnesium,Dissolved	10000	10000	10100	100	101	80-120			1	20
Manganese,Dissolved	1000	975	983	98	98	80-120			1	20
Nickel,Dissolved	1000	995	1000	99	100	80-120			1	20
Potassium,Dissolved	10000	9820	9930	98	99	80-120			1	20
Silver,Dissolved	200	183	184	91	92	80-120			1	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246196-2 08/31/17 17:18 • (LCSD) R3246196-3 08/31/17 17:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Sodium,Dissolved	10000	10000	10100	100	101	80-120			1	20
Vanadium,Dissolved	1000	986	996	99	100	80-120			1	20
Zinc,Dissolved	1000	989	997	99	100	80-120			1	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/31/17 17:23 • (MS) R3246196-5 08/31/17 17:28 • (MSD) R3246196-6 08/31/17 17:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum,Dissolved	10000	3000	12700	12600	97	96	1	75-125			1	20
Arsenic,Dissolved	1000	U	961	963	96	96	1	75-125			0	20
Barium,Dissolved	1000	34.8	1030	1030	100	100	1	75-125			0	20
Beryllium,Dissolved	1000	U	980	980	98	98	1	75-125			0	20
Cadmium,Dissolved	1000	6.43	965	966	96	96	1	75-125			0	20
Calcium,Dissolved	10000	21700	30900	30900	91	91	1	75-125			0	20
Chromium,Dissolved	1000	U	983	982	98	98	1	75-125			0	20
Cobalt,Dissolved	1000	6.33	1010	1010	101	101	1	75-125			0	20
Copper,Dissolved	1000	67.4	1030	1030	96	96	1	75-125			0	20
Iron,Dissolved	10000	352	10200	10200	99	99	1	75-125			0	20
Magnesium,Dissolved	10000	6860	16400	16300	95	95	1	75-125			0	20
Manganese,Dissolved	1000	1700	2600	2600	89	89	1	75-125			0	20
Nickel,Dissolved	1000	16.9	1000	1000	98	98	1	75-125			0	20
Potassium,Dissolved	10000	820	10500	10600	97	97	1	75-125			0	20
Silver,Dissolved	200	U	183	182	92	91	1	75-125			1	20
Sodium,Dissolved	10000	2500	12000	12100	95	96	1	75-125			0	20
Vanadium,Dissolved	1000	U	974	972	97	97	1	75-125			0	20
Zinc,Dissolved	1000	1470	2400	2400	93	92	1	75-125			0	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R3246216-1 09/01/17 01:38

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Aluminum	U		3500	10000
Antimony	U		750	2000
Arsenic	U		650	2000
Barium	U		170	500
Beryllium	U		70.0	200
Cadmium	U		70.0	500
Calcium	U		4630	100000
Chromium	U		140	1000
Cobalt	U		230	1000
Copper	U		530	2000
Iron	1500	U	1410	10000
Lead	U		190	500
Magnesium	U		1110	100000
Manganese	U		120	1000
Nickel	U		490	2000
Potassium	U		10200	100000
Selenium	U		740	2000
Silver	U		280	1000
Sodium	U		9850	100000
Thallium	U		650	2000
Vanadium	U		240	2000
Zinc	U		590	5000

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246216-2 09/01/17 01:40 • (LCSD) R3246216-3 09/01/17 01:42

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	1000000	1120000	1100000	112	110	80-120			2	20
Antimony	100000	109000	105000	109	105	80-120			4	20
Arsenic	100000	101000	99000	101	99	80-120			2	20
Barium	100000	103000	101000	103	101	80-120			2	20
Beryllium	100000	110000	108000	110	108	80-120			2	20
Cadmium	100000	100000	98100	100	98	80-120			2	20
Calcium	1000000	1090000	1070000	109	107	80-120			2	20
Chromium	100000	101000	99400	101	99	80-120			2	20
Cobalt	100000	104000	101000	104	101	80-120			2	20
Copper	100000	105000	102000	105	102	80-120			2	20
Iron	1000000	1120000	1100000	112	110	80-120			2	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246216-2 09/01/17 01:40 • (LCSD) R3246216-3 09/01/17 01:42

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead	100000	104000	102000	104	102	80-120			2	20
Magnesium	1000000	1180000	1160000	118	116	80-120			2	20
Manganese	100000	104000	101000	104	101	80-120			3	20
Nickel	100000	107000	104000	107	104	80-120			2	20
Potassium	1000000	1150000	1120000	115	112	80-120			2	20
Selenium	100000	103000	101000	103	101	80-120			2	20
Silver	20000	18700	18400	94	92	80-120			2	20
Sodium	1000000	1110000	1090000	111	109	80-120			2	20
Thallium	100000	105000	103000	105	103	80-120			2	20
Vanadium	100000	115000	112000	115	112	80-120			3	20
Zinc	100000	104000	101000	104	101	80-120			2	20

L932739-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-16 09/01/17 01:45 • (MS) R3246216-6 09/01/17 01:52 • (MSD) R3246216-7 09/01/17 01:55

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MSD Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	1000000	991000	2040000	2270000	105	128	1	75-125		J5	11	20
Antimony	100000	62300	155000	143000	93	81	1	75-125			8	20
Arsenic	100000	108000	207000	205000	99	97	1	75-125			1	20
Barium	100000	1060000	895000	1180000	0	114	1	75-125	V	J3	27	20
Beryllium	100000	93.1	110000	107000	110	107	1	75-125			2	20
Cadmium	100000	37000	123000	111000	86	74	1	75-125		J6	10	20
Calcium	1000000	12600	1080000	1060000	107	104	1	75-125			2	20
Chromium	100000	421	100000	97700	100	97	1	75-125			2	20
Cobalt	100000	U	102000	99100	102	99	1	75-125			2	20
Copper	100000	331000	409000	389000	78	59	1	75-125		J6	5	20
Iron	1000000	19500000	19300000	18400000	0	0	1	75-125	V	V	5	20
Lead	100000	8630000	15500000	7120000	6890	0	1	75-125	E V	J3 V	74	20
Magnesium	1000000	47300	1210000	1200000	117	115	1	75-125			2	20
Manganese	100000	21400	114000	108000	93	86	1	75-125			6	20
Nickel	100000	1240	105000	103000	104	101	1	75-125			2	20
Potassium	1000000	1930000	2620000	2670000	69	74	1	75-125	J6	J6	2	20
Selenium	100000	U	101000	98200	101	98	1	75-125			3	20
Silver	20000	28500	104000	38800	377	52	1	75-125	J5	J3 J6	91	20
Sodium	1000000	73400	1170000	1140000	110	107	1	75-125			3	20
Thallium	100000	U	100000	97800	100	98	1	75-125			2	20
Vanadium	100000	852	114000	110000	113	110	1	75-125			3	20
Zinc	100000	11500000	8140000	6050000	0	0	1	75-125	E V	E J3 V	29	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



L932739-13,14,15

Method Blank (MB)

(MB) R3246206-1 08/31/17 19:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum	U		0.667	2.00
Antimony	U		0.0333	0.100
Arsenic	U		0.0333	0.100
Barium	U		0.0333	0.100
Beryllium	U		0.00667	0.0200
Cadmium	U		0.0333	0.100
Calcium	U		3.33	10.0
Chromium	U		0.0333	0.100
Cobalt	U		0.0333	0.100
Copper	U		0.0333	0.100
Iron	U		0.333	1.00
Lead	U		0.0333	0.100
Magnesium	U		3.33	10.0
Manganese	0.0421	J	0.0333	0.100
Potassium	U		3.33	10.0
Nickel	U		0.0333	0.100
Selenium	U		0.0333	0.100
Silver	U		0.0333	0.100
Thallium	U		0.0333	0.100
Vanadium	U		0.0667	0.200
Zinc	U		0.167	0.500

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246206-2 08/31/17 19:11 • (LCSD) R3246206-3 08/31/17 19:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	100	99.8	101	100	101	80-120			1	20
Antimony	10.0	9.99	9.94	100	99	80-120			0	20
Arsenic	10.0	9.57	9.64	96	96	80-120			1	20
Barium	10.0	10.0	10.0	100	100	80-120			0	20
Beryllium	10.0	9.94	9.96	99	100	80-120			0	20
Cadmium	10.0	9.65	9.66	97	97	80-120			0	20
Calcium	100	96.2	96.5	96	96	80-120			0	20
Chromium	10.0	9.68	9.71	97	97	80-120			0	20
Cobalt	10.0	10.0	10.0	100	100	80-120			0	20
Copper	10.0	9.82	9.87	98	99	80-120			1	20
Iron	100	101	102	101	102	80-120			0	20
Lead	10.0	9.75	9.75	98	97	80-120			0	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246206-2 08/31/17 19:11 • (LCSD) R3246206-3 08/31/17 19:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Magnesium	100	104	104	104	104	80-120			0	20
Manganese	10.0	9.74	9.64	97	96	80-120			1	20
Potassium	100	103	103	103	103	80-120			1	20
Nickel	10.0	9.85	9.84	99	98	80-120			0	20
Selenium	10.0	9.70	9.71	97	97	80-120			0	20
Silver	2.00	1.80	1.79	90	90	80-120			0	20
Thallium	10.0	9.94	9.93	99	99	80-120			0	20
Vanadium	10.0	9.99	10.0	100	100	80-120			0	20
Zinc	10.0	9.66	9.67	97	97	80-120			0	20

L932374-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932374-01 08/31/17 19:16 • (MS) R3246206-5 08/31/17 19:21 • (MSD) R3246206-6 08/31/17 19:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aluminum	100	ND	100	100	100	100	1	75-125			0	20
Antimony	10.0	ND	10.2	10.2	102	102	1	75-125			0	20
Arsenic	10.0	ND	9.99	9.94	100	99	1	75-125			1	20
Barium	10.0	1.10	10.9	10.9	98	98	1	75-125			0	20
Beryllium	10.0	ND	10.2	10.0	102	100	1	75-125			1	20
Cadmium	10.0	ND	9.94	9.87	99	98	1	75-125			1	20
Calcium	100	539	603	675	64	136	1	75-125	V	V	11	20
Chromium	10.0	ND	9.76	9.63	98	96	1	75-125			1	20
Cobalt	10.0	0.114	10.5	10.4	104	103	1	75-125			1	20
Copper	10.0	ND	10.1	9.98	101	100	1	75-125			1	20
Iron	100	ND	102	101	102	101	1	75-125			1	20
Lead	10.0	0.563	10.5	10.5	99	99	1	75-125			0	20
Magnesium	100	16.8	118	119	101	102	1	75-125			1	20
Manganese	10.0	0.556	10.0	9.99	95	94	1	75-125			1	20
Potassium	100	17.7	119	121	101	103	1	75-125			1	20
Nickel	10.0	ND	10.3	10.2	102	101	1	75-125			1	20
Selenium	10.0	ND	10.3	10.1	103	101	1	75-125			1	20
Silver	2.00	ND	1.85	1.84	93	92	1	75-125			1	20
Thallium	10.0	ND	9.90	9.74	99	97	1	75-125			2	20
Vanadium	10.0	ND	10.1	10.1	101	101	1	75-125			1	20
Zinc	10.0	64.3	68.7	77.1	45	129	1	75-125	V	V	12	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3246264-1 08/31/17 20:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	U		0.754	2.00
Lead	U		0.240	2.00
Selenium	U		0.380	2.00
Thallium	U		0.190	2.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246264-2 08/31/17 20:51 • (LCSD) R3246264-3 08/31/17 20:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	52.2	51.1	104	102	80-120			2	20
Lead	50.0	47.3	46.9	95	94	80-120			1	20
Selenium	50.0	48.2	50.9	96	102	80-120			5	20
Thallium	50.0	47.0	47.0	94	94	80-120			0	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/31/17 20:58 • (MS) R3246264-5 08/31/17 21:05 • (MSD) R3246264-6 08/31/17 21:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	U	52.1	52.0	104	104	1	75-125			0	20
Lead	50.0	10.6	57.4	58.1	94	95	1	75-125			1	20
Selenium	50.0	1.17	51.1	50.1	100	98	1	75-125			2	20
Thallium	50.0	U	47.2	47.8	94	96	1	75-125			1	20



Method Blank (MB)

(MB) R3246259-1 08/31/17 19:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony,Dissolved	U		0.754	2.00
Lead,Dissolved	U		0.240	2.00
Selenium,Dissolved	U		0.380	2.00
Thallium,Dissolved	U		0.190	2.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246259-2 08/31/17 19:05 • (LCSD) R3246259-3 08/31/17 19:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	50.0	51.5	52.0	103	104	80-120			1	20
Lead,Dissolved	50.0	47.6	46.7	95	93	80-120			2	20
Selenium,Dissolved	50.0	49.4	49.9	99	100	80-120			1	20
Thallium,Dissolved	50.0	47.8	47.4	96	95	80-120			1	20

L932739-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932739-07 08/31/17 19:12 • (MS) R3246259-5 08/31/17 19:19 • (MSD) R3246259-6 08/31/17 19:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	50.0	U	51.1	51.7	102	103	1	75-125			1	20
Lead,Dissolved	50.0	10.5	56.8	57.3	93	94	1	75-125			1	20
Selenium,Dissolved	50.0	1.25	50.0	51.1	98	100	1	75-125			2	20
Thallium,Dissolved	50.0	U	46.4	47.3	93	95	1	75-125			2	20



Method Blank (MB)

(MB) R3246446-1 09/01/17 13:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony,Dissolved	U		0.754	2.00
Lead,Dissolved	U		0.240	2.00
Selenium,Dissolved	U		0.380	2.00
Thallium,Dissolved	U		0.190	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3246446-2 09/01/17 13:44 • (LCSD) R3246446-3 09/01/17 13:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	50.0	49.7	48.9	99	98	80-120			2	20
Lead,Dissolved	50.0	48.5	47.5	97	95	80-120			2	20
Selenium,Dissolved	50.0	51.1	50.2	102	100	80-120			2	20
Thallium,Dissolved	50.0	49.2	48.6	98	97	80-120			1	20

L932635-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L932635-01 09/01/17 13:51 • (MS) R3246446-5 09/01/17 13:59 • (MSD) R3246446-6 09/01/17 14:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	50.0	U	50.1	48.8	100	98	1	75-125			3	20
Lead,Dissolved	50.0	0.864	48.6	48.7	96	96	1	75-125			0	20
Selenium,Dissolved	50.0	U	51.4	51.4	103	103	1	75-125			0	20
Thallium,Dissolved	50.0	U	49.3	48.9	99	98	1	75-125			1	20



Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

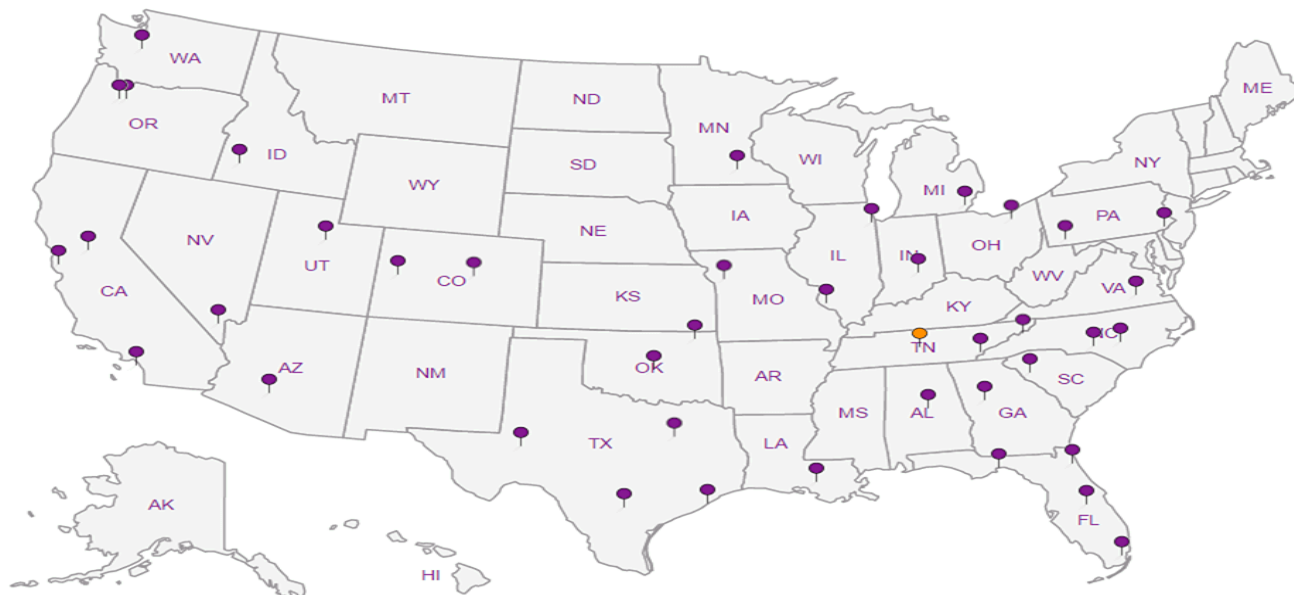
⁹ Sc

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	IN00003		

Our Locations



PAGE:

Weston Solutions
1435 Garrison street
Lakewood CO, 80215

Billing Information:

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 832739

E233

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks

Sample # (lab only)

Report to:
Joe Rudi
Email To:
joe.rudi@westonsolutions.com

Project
Description: Jumbo Mine

City/State
Collected: CO

Phone: 303-729-6191
Fax:

Client Project #
20408.016.001.0499.00

Lab Project #

Collected by (print):
JR/MC

Site/Facility ID #
JumbMine

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #
WESSOLLC082917S1

Date Results Needed

9/11/17

No.
of
Cntrs

Immediately
Packed on Ice N Y

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TAL METALS 6010 / 7470	TAL METALS 6010 / 7470 DISSOLVED
JM-SW01	Grab	Water	N/A	8/28/17	12:20	2	X	X
JM-SW02					12:25	2	X	X
JM-SW03					12:50	2	X	X
JM-SW04					13:20	2	X	X
JM-SW05					15:10	2	X	X
JM-SW05D					15:10	2	X	X
JM-SW06					15:30	6	X	X
JM-SW07					13:55	2	X	X
JM-SW08					14:35	2	X	X
JM-BT-8.5	✓	✓	✓	✓	14:30	1		X

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

ESCIEN

Samples returned via:
UPS FedEx Courier

Tracking #

pH Temp

Flow Other

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VQA Zero Readspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N

Relinquished by: (Signature)

Date: 8/29/17 Time: 15:30

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date: 8/29 Time: 1702

Received by: (Signature)

Temp: °C Bottles Received: 34

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)

Date: 8-30-17 Time: 845

Hold:

Condition:
NCF / OK

Weston Solutions
1435 Garrison street
Lakewood CO, 80215

Billing Information:

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 932739

Table #

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks

Sample # (lab only)

Report to:
Joe Rudi

Email To:
joe.rudi@westonsolutions.com

Project Jumbo Mine
Description:

City/State CO
Collected:

Phone: 303-729-6191
Fax:

Client Project #
20408.016.001.0499.00

Lab Project #

Collected by (print):
JR/MC

Site/Facility ID #
JumbMine

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #
WESSOLLC082917S1

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

9/15/17

No.
of
Cntrs

Immediately
Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
JM-BT-9.5	Grab	Water	N/A	8/28/17	14:37	1
JM-BT-10.5		↓	↓		14:45	1
JM-TCLP01		SS	0-2"		15:37	1
JM-TCLP02					15:45	1
JM-TCLP03					15:57	1
JM-WR03					15:50	3
JM-WR04					16:10	1
JM-WR04D					16:10	1
JM-WR06					16:30	1

TAL METALS 6010 / 7470

TAL METALS 6010 / 7470 DISSOLVED

TCLP METALS

TAL METALS 6010 / 7471

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
UPS FedEx Courier

Tracking #

pH Temp

Flow Other

Sample Receipt Checklist

COC Seal Present/Intact: ☒ N
COC Signed/Accurate: ☒ N
Bottles arrive intact: ☒ N
Correct bottles used: ☒ N
Sufficient volume sent: ☒ N
If Applicable
VOA Zero Headspace: ☒ N
Preservation Correct/Checked: ☒ N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes/No
HCL/MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:
0.9°C 34

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 8/26/17 Time: 8/15

Hold:

Condition:
NCF / OK



12065 Lebanon Rd.
Mt. Juliet, TN 37122
Ph.: (800) 767-5859
Fax: (615) 758-5859
Internet: www.esclabsciences.com
Quote: WESSOLLCO8291751
REP: Tylene Lichtenberg (303) 921-8217 tylihtenberg@esclabsciences.com
PM: Shane Gambill (615) 773-9747 sgambill@esclabsciences.com

Weston Solutions, Inc.

Eric Sandusky
1435 Garrison Street
Lakewood, CO 80215
Email: Eric.Sandusky@WestonSolutions.com
Phone: 303-729-6146
Project: Jumbo Mine
Matrix: Groundwater & Soil
Payment Terms: Net 45 Days
Date: August 29, 2017

No Project Specific QAPP or SAP

Quote Exp. Date: August 29, 2018

Parameter	Method	Est. Quantity	Cost/Sample	Extended Cost
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Standard 5 to 7 Working Days Groundwater

TAL Metals	6010/7470	10	\$90.00	\$900.00
TAL Metals	6010/7470	13	\$90.00	\$1,170.00

Soil

TAL Metals	6010/7471	5	\$90.00	\$450.00
TCLP Extraction Fee	1311	3	\$35.00	\$105.00
TCLP - TAL Metals	6010/7470	3	\$90.00	\$270.00

2 Day RUSH with x1.5 RUSH Multiplier Groundwater

TAL Metals	6010/7470	10	\$135.00	\$1,350.00
TAL Metals	6010/7470	13	\$135.00	\$1,755.00

Soil

TAL Metals	6010/7471	5	\$135.00	\$675.00
TCLP Extraction Fee	1311	3	\$52.50	\$157.50
TCLP - TAL Metals	6010/7470	3	\$135.00	\$405.00

Metals Prep (one per invoice)

		1	\$10.00	\$10.00
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Prices quoted reflect a 5-7 working day turnaround and include the following service options:

- All necessary sampling containers, coolers, and preservatives.
- Pre-printed labels and chain of custody forms.
- Data delivery via email or secure web access. Additional \$7.50 per set charge applicable for hard copies.
- Email notification of sample login.
- On-Line Data Management.
- Inbound and outbound transport of samples/supplies.
- Reported trip blanks are billable samples.

Please reference your job number and/or job name on chain of custody along with the ESC quote number, or attach copy of this quote with chain of custody upon submittal of samples to laboratory.

WESSOLLCO8291751

If you have any technical questions, or would like to place an order for bottles,
please contact your Project Manager,

Shane Gambill (615) 773-9747 sgambill@esclabsciences.com

RUSH Turnaround Multipliers: (from receipt of sample)

- 1 Working Day x 2.**
- 2 Working Days x 1.5**
- 3 to 4 Working Days x 1.25**
- 5 Working Days/Firm Due Date x 1.1**

ESC's Terms & Conditions are now available on our website! Please visit www.esclabsciences.com and click on the "Technical" section under Documents & Forms. If you have any questions, please feel free to contact sales_service@esclabsciences.com.